

Social Programs That Work Review

## Evidence Summary for the Youth-Nominated Support Team-Version II Program to Prevent Adolescent Suicide

### HIGHLIGHTS:

- **PROGRAM:** The Youth-Nominated Support Team-Version II (YST) is a psychoeducational, social support program for adolescents hospitalized in a psychiatric unit who have recently reported a suicide attempt or serious thoughts about killing him- or herself.
- **EVALUATION METHODS:** A well-conducted randomized controlled trial (RCT) with a sample of 448 adolescents.
- **KEY FINDINGS:** The program reduced the all-cause mortality rate from 6% in the control group to 1% in the program group, as measured 11 to 14 years after study entry. This difference was statistically significant.
- **OTHER:** The effect on all-cause mortality, while promising, could be a “false-positive” finding caused by the study’s measurement of the program’s effect on multiple outcomes. A replication RCT would be valuable to hopefully rule out this possibility by reproducing the mortality effect in a new study sample.

### I. Evidence rating: **SUGGESTIVE TIER**

The standard for Suggestive Tier is:

*Programs that have been evaluated in one or more well-conducted RCTs (or studies that closely approximate random assignment) and found to produce sizable positive effects, but whose evidence is limited by only short-term follow-up, effects that fall short of statistical significance, or other factors. Such evidence suggests the program may be an especially strong candidate for further research, but does not yet provide confidence that the program would produce important effects if implemented in new settings.*

### II. Description of the Program:

The Youth-Nominated Support Team-Version II (YST) program is a psychoeducational, social support intervention for adolescents hospitalized in a psychiatric unit who have recently reported a suicide attempt or serious thoughts about killing him- or herself. In this program, adolescents nominate several “caring adults” (average of 3.4 per adolescent from family, school, and/or community) to serve as support persons

for them after hospitalization. These adults attend a psychoeducational session to learn about the youth's problem list and treatment plan, suicide warning signs, communicating with adolescents, and how to be helpful in supporting treatment adherence and positive behavioral choices. The adults have regular contact with the youth, with YST staff support, over the three-month duration of the program. The adults also receive weekly supportive telephone calls from YST staff during this three-month period. The program's cost is not reported but likely to be modest given the non-intensive and brief (three month) duration of the program.

### **III. Evidence of Effectiveness:**

The YST program (version II) has been evaluated in one RCT, conducted at two hospitals, with a sample of 448 adolescents. One of the hospitals was a university hospital; the other was a private hospital.

#### **Overview of Study Design:**

The study sample comprised 448 adolescents aged 13 to 17 years, who were patients in a psychiatric unit at one of the study hospitals and had reported a suicide attempt or serious thoughts about killing him- or herself within the past four weeks. 71% were female, 84% were Caucasian, and 74% had previously attempted suicide. Family income was highly variable across the sample. The youth were randomly assigned to either a program group that received YST plus usual treatment (e.g., psychotherapy and/or medication) or a control group that only received usual treatment. These procedures resulted in a sample of 223 adolescents in the program group and 225 in control group. Adolescents' mental health, substance use, suicidal ideation, and suicide attempts were measured over the 12 months following study entry. Mortality and suicide outcomes were measured 11 to 14 years after study entry (depending on when youth entered the study) using data from the National Death Index.

#### **Key Findings:**

The study found statistically-significant reductions in suicidal thoughts at the follow-up six weeks after study entry, but no significant (or meaningful non-significant) effects on this outcome at the 12-month follow-up. The study also found no significant effects – or clear pattern of non-significant effects – on the other outcomes measured during the 12 months following study entry (e.g., depression, substance use, suicide attempts).

11 to 14 years after study entry, the study found that all-cause mortality was higher in the control group (5.8%) than in the program group (0.9%). This difference was statistically significant ( $p=0.004$ ). The causes of death were drug overdose (8 control group deaths), suicide (3 control group, 1 program group), traffic fatality (1 control group), homicide (1 program group), and infective endocarditis (related to drug use, 1 control group). The difference between the two groups in confirmed death by suicide (1.3% control group versus 0.5% program group) was not statistically significant.

**Discussion of Study Quality:**

Based on our review, we believe this was a well-conducted RCT. Youth in the two groups were largely similar in their pre-program characteristics (e.g. demographics, and suicide attempts and ideation). However, there were a few moderate pre-program differences in use of alcohol, marijuana, and other drugs, with the program group reporting higher use than the control group. The study measured mortality outcomes using official administrative records – i.e., the National Death Index – and confirmed all identified deaths with state death certificates. Evaluators and staff who matched the study data to National Death Index records were appropriately kept unaware (“blind”) as to whether which data represented program versus control group members. The study appropriately measured mortality outcomes for all sample members regardless of whether or how long they participated in the program (i.e., the study used an “intention-to-treat” analysis).

The main study limitation is that all-cause mortality was one of several outcomes that the study measured, and it was not pre-specified as a primary study outcome; thus, the study’s finding for this outcome could be a “false-positive” caused by the study’s examination of the program’s effects on multiple outcomes. A replication RCT would be valuable to hopefully rule out this possibility by reproducing the mortality effect in a new study sample.

**IV. References:**

King, C.A., Arango, A., Kramer, A., Busby, D., Czyz, E., Foster, C.E., Gillespie, B.W., (2019). Association of the Youth-Nominated Support Team Intervention for Suicidal Adolescents with 11- to 14-Year Mortality Outcomes: Secondary Analysis of a Randomized Clinical Trial. *JAMA Psychiatry*. Published online February 06, 2019. doi:10.1001/jamapsychiatry.2018.4358

King, C.A., Klaus, N., Kramer, A., Venkataraman, S., Quinlan, P., & Gillespie, B. (2009). The Youth-Nominated Support Team-Version II for Suicidal Adolescents: A Randomized Controlled Intervention Trial. *Journal of Consulting and Clinical Psychology*, 77(5), 880–893. doi:10.1037/a0016552